

U.S.S.N. 10/600,799

**REMARKS**

Through examination and careful review of the application by the Examiner is noted and appreciated.

Claims 1-9 and 12-16 are pending in the application.

Claims 12, 15 and 16 have been cancelled and withdrawn from further consideration by the Examiner.

Claims 1-9, 13 and 14 stand rejected.

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**Claim Rejections Under 35 USC §103(a)**

Claims 12, 15 and 16 are rejected under 35 USC §103(a) as being unpatenable over Kim, et al and Lin et al.

Claims 12, 15 and 16 have been cancelled and withdrawn from further consideration by the Examiner. Claim 13 has been rewritten into independent form to include all of the limitations contained in the now cancelled independent Claim 12.

Claims 13 and 14 are rejected under 35 USC §103(a) as being unpatenable over Kim, et al., Lin et al and further in view of Cho.

The rejection of Claims 13 and 14 under 35 USC §103(a) based on Kim, Lin and Cho is respectfully traversed.

Claim 13, now an independent claim by merging with the cancelled Claim 12, recites the limitation of "applying a plurality of spacers on the cap to maintain a desired spacing between the cap and the wafer". The applicants respectfully submit that such is not taught by Cho in Figure 9 as alleged by the Examiner. The rejection of Claims 13 and 14 under 35 USC §103(a) is therefore respectfully traversed.

Cho teaches in Figure 9 a **sealing material 14"** as clearly indicated by Cho in Figure 10 and at column 5, lines 8-15:

"... a further sealing layer 14" in order to maintain a vacuum within the enclosure defined by the shell 10" and the substrate 12".  
Sealing material 14" representing this further layer is evident in Figure 9 **around the lower perimeter of the shell 10"**."

Figure 10 of Cho clearly shows that the sealing material 14" exists on the **outside** of the shell (or cap) 10", and not **under** the shell 10" as a spacer.

Moreover, contrary to the Examiner's contention that, "Cho teaches (e.g. Figure 9) to

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use a spacer 14" to seal the device", the Applicants respectfully submit that the spacer taught in the present invention Claim 13 is used to **maintain a desired spacing** between the cap and the wafer. A plurality of spacers in the present invention is not used to seal the device, as alleged by the Examiner.

Claim 14 depends on the newly amended independent Claim 13, and therefore is likewise allowable. A reconsideration for allowance of Claims 13 and 14 under 35 USC §103(a) based on Kim, Lin, and Cho is respectfully requested of the Examiner.

Claims 1, 2 and 5 and rejected under 35 USC §103(a) as being unpatentable over Kim et al and Sparks et al. It is contended that while Kim et al does not show applying the layer of metalization on the entire face of the cap and removing the metalization not covered by the solder, such is taught by Sparks in Figures 2 and 3.

The rejection of Claims 1, 2 and 5 under 35 USC §103(a) based on Kim et al and Sparks et al is respectfully traversed.

Contrary to the Examiner's contention that Sparks et al teaches in Figures 2 and 3 applying a layer of metalization 26 on the entire face of a cap 12 and then removing the metalization not covered by the solder, the Applicants respectfully submit that Sparks even though teaching a metalization layer 26, does not teach the removal of the metalization layer not covered by the solder. This is not shown in Figures 2, 3 and in column 5, lines 1-64. Moreover, the present invention independent Claim 1 clearly recites, "forming a continuance bead of solder completely surrounding said active areas on said chip", neither Kim et al nor Sparks et al teaches a bead of solder that completely surrounds active areas. The Applicants therefore submit that independent Claim 1 is clearly not rendered obvious by the combined art of Kim et al

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and Sparks et al. A reconsideration for allowance of Claims 1, 2 and 5 is respectfully requested of the Examiner.

Claims 3, 4 and 6 are rejected under 35 USC §103(a) based on Kim et al, Sparks et al and further in view of Lin et al.

Claims 3, 4 and 6 depend on directly or indirectly independent Claim 1 which the Applicants have shown is not rendered obvious by Kim et al and Sparks et al, the Applicants therefore respectfully submit that the additional secondary reference of Lin et al does not add more weight in a §103(a) rejection in reference to Claims 3, 4 and 6.

The rejection of Claims 3, 4 and 6 under 35 USC §103(a) based on Kim et al, Sparks et al and Lin et al is respectfully traversed. A reconsideration for allowance of these claims is respectfully requested of the Examiner.

Claims 8 and 9 are rejected under 35 USC §103(a) as being unpatenable over Kim et al, Sparks et al, Lin et al, and further in view of Cho. It is contended that Cho teaches the use of a spacer 14" to seal the device.

As previously discussed, the Applicants have clearly shown that **the alleged spacer 14" is a sealing material and not a spacer at all**. As a result, the Applicants respectfully submit that Claims 8 and 9 are not rendered obvious by the combined references of Kim, Sparks, Lin and Cho.

Based on the foregoing, the Applicants respectfully submit that all of the pending claims, i.e. Claims 1-9, 13 and 14 are now in condition for allowance. Such favorable action by the Examiner at an early date is respectfully solicited.

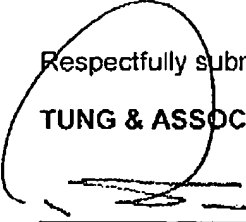
In the event that the present invention is not in a condition for allowance for any other reasons, the Examiner is respectfully invited to call the Applicants' representative at his

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Bloomfield Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,

**TUNG & ASSOCIATES**



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